

WHAT IS CLAIMED IS:

1. A method for transmitting message content required by a wireless procedure in a hybrid wireless network before the procedure is invoked, the hybrid
5 wireless network having at least one radio access network based on a first technology and a core network based on a second technology, the radio access network and core network having different encoding and decoding schemes for the message contents, the method comprising:

10 sending message contents in a message of a first type from a network entity in the core network to a hybrid mobile switching center using a first encoding scheme;

extracting the encoded message contents by the hybrid mobile switching center;

15 packaging the extracted message content in a second message of a second type readable by a mobile terminal in the radio access network;

extracting the message contents from the second message by the mobile terminal; and

20 decoding the message contents encoded by the first encoding scheme,

wherein the hybrid mobile switching center is capable of communicating to both the mobile terminal and the core network with messages conforming to either the first or second technologies and wherein the mobile terminal is a dual mode terminal operable with either the first or the second technologies.

25 2. A method for transmitting message content required by a wireless procedure in a hybrid wireless network before the procedure is invoked in a hybrid wireless network, the hybrid wireless network having at least one radio access network based on a first technology and a core network based on a second
30 technology, the radio access network and core network having different encoding and decoding schemes for the message contents, the method comprising:

sending message contents in a message of a first type from a mobile terminal in the radio access network to a hybrid mobile switching center in the core

network using a first encoding scheme;

extracting the encoded message contents by the hybrid mobile switching center;

packaging the extracted message content in a second message of a second type readable by a predetermined network entity in the core network;

extracting the message contents from the second message by the network entity; and

decoding the message contents encoded by the first encoding scheme,

wherein the hybrid mobile switching center is capable of communicating to both the mobile terminal and the core network with messages conforming to either the first or second technologies and wherein the mobile terminal is a dual mode terminal operable with either the first or the second technologies.

3. A method for providing authentication of a mobile terminal in a hybrid wireless network, the hybrid wireless network having at least one radio access network based on a first technology and a core network based on a second technology, the method comprising:

sending an initiating authentication message to a mobile unit, receiving a signature response, a random value, a ciphering key in a first message compatible with the first technology,

sending the signature response, the random value, the ciphering key in a form compatible with the second technology,

receiving an authentication indication in a message compatible with the second technology,

sending the random value and the ciphering key in an authentication message compatible with the first technology.

4. The method of claim 3 wherein the initiating authentication message further comprises sending a challenge message.

5. The method of claim 3 wherein the receiving a signature response, a

random value, a ciphering key in a first message compatible with the first technology further comprises receiving a response to the challenge message.

5 6. The method of claim 3 wherein the sending the signature response, the random value, the ciphering key in a form compatible with the second technology further comprises sending an access request message.

10 7. The method of claim 3 wherein the receiving an authentication indication in a message compatible with the second technology further comprises receiving a access accept message.

15 8. The method of claim 3 wherein the receiving an authentication indication in a message compatible with the second technology further comprises receiving a access reject message.

 9. The method of claim 3 wherein the sending the random value and the ciphering key in an authentication message compatible with the first technology further comprises sending a challenge success message.

20 10. The method of claim 3 wherein the sending the random value and the ciphering key in an authentication message compatible with the first technology further comprises sending a challenge failure message.

25 11. The method of claim 6 further comprising using the international mobile identity number, the random number, and the ciphering key to perform a signature response comparison.

 12. The method of claim 7 further comprising requesting a new signature response, a new random value, and a new ciphering key.

30 13. A method for providing authentication of a mobile terminal in a hybrid wireless network, the hybrid wireless network having at least one radio access network based on a first technology and a core network based on a second

technology, the method comprising:

receiving parameters in a message compatible with the first technology,

comparing the signature response using the international mobile identity number, the random number, and the ciphering key, and sending new parameters for authentication during a future authentication process.

14. The method of claim 13 wherein the receiving parameters further comprises receiving a signature response, a random number, and a ciphering key.

15. The method of claim 13 wherein the sending new parameters for authentication further comprises a new random number and a new ciphering key.

16. A method for providing authentication of a mobile terminal in a hybrid wireless network, the hybrid wireless network having at least one radio access network based on a first technology and a core network based on a second technology, the method comprising:

requesting a handshake authentication protocol challenge of the mobile terminal from the radio access network;

invoking an authentication process using stored parameters from a previous authentication process;

passing predetermined parameters for the authentication by the core network through a hybrid mobile switching center to the mobile terminal using messages conforming to the first technology, the parameters conforming to the second technology;

invoking an authentication process by the mobile terminal using the passed parameters during the current authentication process;

informing the hybrid mobile switching center of the core network for the authentication of the mobile terminal,

wherein the hybrid mobile switching center is capable of communicating to both the mobile terminal and the core network with messages conforming to either the first or second technologies.

17. The method of claim 16 wherein:

the radio access network supports the CDMA2000 1xEV-DO standard and
the core network supports the global system for mobile communications

5 standard.